May 27, 2015

Dear ICMGP 2015 Back-Trajectory Workshop participant,

<u>These are instructions if you are going to be using a Windows-based computer in the workshop</u>. There is a separate set of instructions if you are going to use a Mac-based computer. If you are planning to try to use a computer with a Linux-based operating system for the workshop, please contact the instructor at: mark.cohen@noaa.gov

Thank you for your interest in participating in the workshop. Here is some information you will need, including steps you should take *before* the workshop. Some of the steps involve software installation, and so, you may need administrative privileges on your computer. For some of you, this may require you to work your IT department. As it is intended to be a hands-on workshop, in which you carry out the back-trajectory simulations on your own computer, it is extremely important that you make every effort to install the needed software before the workshop.

It is hoped that these instructions are clear and will allow you to successfully carry out the necessary pre-workshop steps. If you encounter serious problems, you can contact the workshop instructor Mark Cohen by email at: `mark.cohen@noaa.gov`

So, here is what we'd like you to try to do before the workshop. Some items are optional, and these are marked as such.

1. Download workshop materials and software (to anywhere on your computer, e.g., your Downloads folder)

http://www.arl.noaa.gov/documents/workshop/ICMGP_2015/WINDOWS_hysplit4_installation_files.zip

http://www.arl.noaa.gov/documents/workshop/ICMGP_2015/extra_folders_for_WINDOWS_hysplit4.zip

2. Install the necessary "helper" applications and the then HYSPLIT

Unzip the <u>WINDOWS_hysplit4_installation_files.zip</u> file that you downloaded. You can unzip it to any location on your computer.

There are two folders -- win32 and win64 – with installation software for 32-bit and 64-bit systems. If you are unsure whether you have a 64-bit or 32-bit system, you can check the "System" properties or ask your IT department to help. If you cannot determine which you have, installing 32-bit versions should work on both 32-bit and 64-bit machines. However, a 64-bit version will not generally work on a 32-bit machine.

There is a "readme.txt" file in each of these folders, with further instructions.

As stated in the readme.txt file, it is important to install the programs in the correct order:

1. Tcl-tk
2. Ghostscript
3. Ghostview
4. ImageMagick
5. HYSPLIT

You may need administrative privileges on your computer to install the needed software.

For the first four programs, choose the default installation locations.

For HYSPLIT, try to install it on the c:\ drive as c:\hysplit4\, and you may need admin privileges to do this. If it is not possible to install it on the c:\ drive, try to avoid any locations that have one or more "spaces" in the folder name, like "My Documents"

3. Add the "extra folders" to the HYSPLIT installation

Unzip the extra_folders_for_WINDOWS_hysplit4.zip file that you downloaded earlier. You can unzip this anywhere on your computer. Once it is unzipped, move or copy the folders to the hysplit4\ directory.

The original sub folders in the hysplit4 directory include:

```
bdyfiles, cluster, data2arl, datem, document, examples,
exec, gisprog, graphics, guicode, html, quikcode, scripts,
testing, uninstall, working
```

The extra folders that you will add to the hysplit4 directory include:

```
metdata
working_traj_001
working_freq
workshop_reference_files
```

The "workshop_reference_files" folder has numerous subfolders

4. (Optional) Install a text editor with context highlighting, such as Notepad++

You will generally need to use a plain text editor when dealing with the text files in the workshop. The basic plain-text editor in Windows (Notepad) can be used. But, since we will be working with text-file *scripts* in the workshop, it would be helpful to view these in a text editor that provides "context" highlighting (e.g., comment lines look different than executable lines, etc.). One free editor that has context-highlighting and several other useful features is Notepad++, which can be downloaded from the following web page and then installed.

http://notepad-plus-plus.org/

5. (Optional) You can also install some additional software that can be used with HYSPLIT, like Google Earth

HYSPLIT can produce outputs that can be imported into Google Earth and displayed. As an optional pre-conference step, you could install Google Earth on your computer. The free version should work fine with HYSPLIT.

https://www.google.com/earth/download/ge/agree.html

6. (Optional) Windows Configuration Steps

There are a few optional, additional things that you can do to configure Windows to make it a little easier to follow along with some of the workshop examples.

1. Put a short-cut link to Notepad (or another text editor) on the desktop so that files without text extensions can easily be opened and viewed. Open the Windows Start Menu, open All Programs, Accessories, and find and right-click on Notepad, and select Send to, Desktop (create shortcut).

2. If File Explorer is not already configured to view all file extensions, open the View tab of Folder Options File Menu in the Control Panel, and uncheck the box for Hide extensions for known file types.

3. We will be using the "Command Prompt" terminal window at certain stages in the workshop. You can usually find this under Windows "Accessories". Creating a shortcut on the desktop for the "Command Prompt" terminal window would be helpful.

7. (Optional) Check for additional workshop material

Every effort was made to completely prepare all of the necessary workshop materials. However, if additional materials are required, they will be put in one or both of the following files. At the present, the files are "there" but just contain a simple place-holder "read-me" file. If these files are needed, they will also be able to be downloaded at the workshop itself.

http://www.arl.noaa.gov/documents/workshop/ICMGP_2015/added_material_01.zip

http://www.arl.noaa.gov/documents/workshop/ICMGP_2015/added_material_02.zip

Also, a preliminary version of the main course lecture materials -- a large PowerPoint presentation-- have been included in the "Workshop Reference Files" that you have downloaded. But, this file is still being finalized. If/when this is updated, it will be placed at:

http://www.arl.noaa.gov/documents/workshop/ICMGP_2015/ICMGP_2105_Trajectory_Workshop.pptx

8. Things to bring to the Workshop

You may wish to bring a computer mouse as this may make data entries much easier.

9. Pre-Workshop Problems and Questions

I hope that everything above is clear and that it will all work for each of you. But, if you have problems or questions before the workshop about any of the above, please contact me by email at: mark.cohen@noaa.gov